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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,744	06/08/2001	On-Kwok Victor Li	9661-0019	5203

7590 01/11/2007  
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EXAMINER
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COULTER, KENNETH R

ART UNIT	PAPER NUMBER
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2141

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

09/877,744

Applicant(s)

LI ET AL.

Examiner

Kenneth R. Coulter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-19 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 – 7 and 9 – 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Law (U.S. Pat. No. 5,875,190) (Asynchronous Transfer Mode Switching System).

2.1 Regarding claim 1, Law discloses a method for assigning an address to a node in a network having an arbitrary topology (col. 6, lines 29 – 34 “**arbitrary distribution network**”), the method comprising:

providing a first address to a first node such that the first address includes a description of a path to the first node (Figs. 2, 3, 4; col. 3, lines 53 – 60; col. 5, lines 47 – 52; col. 8, lines 6 - 21)

establishing a mapping between plurality of output ports in the network and bits in the first address such that a packet, directed to the first address, at a second node in the network is forwarded via an output port on the second node in the network, in response to a specified bit in the first address having a specified value (Fig. 4; Abstract “The distribution network *may* be of a radix-r tree configuration in which multicast

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elements reference an extra cell header which identifies the output links of a multicast elements to which a data packet is to be transferred.”; col. 5, lines 47 – 55 “The arriving packets each include a **packet header** that includes an **address field** and a priority field. The address field, ... indicates **which of the output ports** 201 to 20N the packet is **destined for**.”; col. 5, line 66 – col. 6, line 9; col. 8, lines 6 – 67 “The **distribution networks 131 to 13N use a self-routing addressing scheme** and decentralized control.”; col. 6, line 54 – col. 7, line 5 “The distribution network 13i is **self-routing** ...”).

2.2 Per claim 2, Law teaches the method of claim 1 wherein the network is an *optical* network (col. 12, lines 15 - 28).

2.3 Regarding claim 3, Law discloses the method of claim 1 wherein at least one node in the network has more than one address (col. 8, lines 6 - 21).

2.4 Per claim 4, Law teaches the method of claim 1 wherein concurrent bits in the first address map to output ports on the second node (Figs. 3, 4; col. 8, lines 6 - 21).

2.5 Regarding claim 5, Law discloses the method of claim 4 wherein the map is a one-to-one correspondence (Figs. 3, 4; col. 8, lines 6 - 21).

2.6 Per claim 6, Law teaches the method of claim 4 wherein each of the output ports on the second node maps to a bit in the concurrent bits in the first address (Figs. 3, 4;

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col. 8, lines 6 - 21).

2.7 Regarding claim 7, Law discloses the method of claim 1 further including associating an output port in a node to an unused bit in a sub-field corresponding to the node in an address such that in response to a new address for directing a packet to a node in the network, the packet is forwarded via the output port (Fig. 4; col. 7, lines 41 – 46; col. 8, lines 6 – 21; col. 1, lines 5 – 10 “modular core **switch fabric that is self-routing, expandable...**”; col. 14, lines 52 – 55 “simple augmentation methods used to **expand the distribution network** 13i ...”)

2.8 Per claims 9 – 19, the rejection of claims 1 – 7 under 35 USC 102(b) (paragraphs 2.1 – 2.7 above) applies fully.

### ***Allowable Subject Matter***

3. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

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4. Applicant's arguments filed 8/16/06 have been fully considered but they are not persuasive.

Applicant argues that Law (U.S. Pat. No. 5,875,190) does not disclose "providing a first address to a first node such that the first address includes a description of a path to the first node" as taught in claim 1; and "only a unique path is available between a pair of input port and output port ...".

Examiner disagrees.

Law clearly discloses this claimed limitation in the following sections (Figs. 2, 3, 4; col. 3, lines 53 – 60; col. 5, lines 47 – 52; col. 8, lines 6 - 21).

The "unique path" between an input port, output port pair is not taught in Law.

Applicant argues that Law does not disclose "establishing a mapping between plurality of output ports in the network and bits in the first address such that a packet, directed to the first address, at a second node in the network is forwarded via an output port on the second node in the network, in response to a specified bit in the first address having a specified value" as disclosed in claim 1.

Examiner disagrees.

Law clearly discloses this claimed limitation in the following sections (Fig. 4; Abstract "The distribution network *may* be of a radix-r tree configuration in which multicast elements reference an extra cell header which identifies the output links of a multicast elements to which a data packet is to be transferred."; col. 5, lines 47 – 55 "The arriving

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packets each include a **packet header** that includes an **address field** and a priority field. The address field, ... indicates **which of the output ports** 201 to 20N the packet is **destined for.**"; col. 5, line 66 – col. 6, line 9; col. 8, lines 6 – 67 "The **distribution networks 131 to 13N use a self-routing addressing scheme** and decentralized control."; col. 6, line 54 – col. 7, line 5 "The distribution network 13i is **self-routing ...**").

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth R. Coulter whose telephone number is 571 272-3879. The examiner can normally be reached on M – F, 7 am – 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

krc

KENNETH R. COULTER  
PRIMARY EXAMINER  
